DETAILED ACTION

Response to Remarks

1. The Office Action has been made issued in response to amendment filed April 7, 2010. Claims 15-31 are pending. Applicant's arguments have been carefully and respectfully considered in light of the instant amendment, and some are persuasive.

Claim Rejections – 35 USC section § 112

The amendment to claim 17 has overcome the 112 rejection. Therefore the rejection is being withdrawn.

Claim Rejections – 35 USC section § 103

An interview was conducted on March 29, 2010 in which the Examiner agreed with Applicant that the combination of Liam and Bague fail to disclose said video camera is substantially stationary in relation to said scene. Therefore, the previous grounds of rejection is withdrawn and new grounds of rejection is presented.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 15-21, 27 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liam (WO 01/33503) in view of Tanaka (US Patent No.: 5,798,793) further in view of Bague (US Patent No.: 6,246,933).

As to independent claims 17 and 31, Liam discloses a method of detecting an incident on a portion of route (1) situated in a scene (2) (method for detecting traffic incident, column 1, lines 7-10) when said portion of route is suitable for having objects traveling therealong (detection of vehicle of region of interest (ROI) at traffic sites, column 11, lines 1-7), and when the method makes use of a video camera (3) (1301, see Fig 1) having a target (4) constituting an optoelectronic converter of a real optical image of the scene, said target being controlled by a programmable processor member (6) (image processing unit, see Fig 1), said process for detecting incidents comprising determining in said video camera at least one point selected on a current real image of said scene, outside of said portion of said route, which is approximately at the same position on at least one of a set of immediate previous targets; if not so, coming back to step i); if so, moving to step B) B) having said programmable processor member process said current real images to detect incidents (see page 19, section 5.2.5 and Fig 27 - where a loop is used to detect an incident on chevron (outside of route) or roadway).

However, Liam does not teach video camera controllable in one of azimuth, elevation and field of view and having said programmable processing member determine that said video camera is substantially stationary in relation to said scene. Tanaka discloses a method for using an automatic focusing device (see column 1, lines

11-14) which includes a video camera (see Fig 1) controllable in one of azimuth, elevation and field of view (see column 3, lines 10-33) and having said programmable processing member (18 –see Fig 1) determine that said video camera is substantially stationary in relation to said scene (see column 4, lines 39-45 and Fig 2 – where a determination is made as to when the camera has stop panning). At the time of the invention was made, it would have been obvious to a person of ordinary skill in the art to consider the teaching of Tanaka as a modification to the teaching of Liam in order to provide an automatic focus adjusting device in which no erroneous operation is present by exactly discriminating a change in a focus signal caused by a relative movement between an object and a camera from a change in an in-focus state (see column 2, lines 1-80.

Note the discussion above, the combination Liam and Tanaka as a whole does not expressly disclose an optoelectronic converter of a real optical image of the scene and . Bague discloses a method for traffic accident data recording wherein an optoelectronic converter of a real optical image of the scene (see column 14, lines 30-31). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modified the method for detecting a traffic incident of Liam as modified by Tanka for reproducing and reconstructing accident by using traffic information stored in a traffic accident data recorder (column 1, lines 7-14) so that a traffic incident could be reconstructed using real historic data instead of post-accident or estimated data (column 6, lines 5-8).

As to claim 15-16, all the limitations are discussed above except: wherein the real image of the scene begins to move relative to the target occurs upon the beginning of a zooming in function or a zooming out function of the real image and wherein the end of the movement of the real image of the scene relative to the target occurs upon an end of a zooming in function or a zooming out function of the real image. However, it would have obvious for one skilled in the art to have modified Liam as modified by Bague to wherein the end and beginning of the scene is a function of the zoom so that the camera would be in optimal position and have the proper focus to capture a scene and to quickly and easily determine if there an incident has occurred.

As to claim 18, Liam teaches the method, wherein the programmable processor member is deactivated as soon as the stationarity of the scene relative to the target is detected as ending, and reactivated, in order to implement the process for detecting an incident, as soon as said stationarity of the scene relative to the target is detected as beginning. (note that the vehicle detection window detect the moving vehicle and if the vehicle is not present in the preceding and current frame the vehicle detection window will be in an idle state, see column 21, lines 9-15, also see column 23, lines 1-15, where a stopped vehicle is detected indication a traffic incident).

As to claim 19, Liam teaches the method, characterized in that the beginning and the end of movement of the real image of the scene relative to the target are detected: by determining at least one first image point of said real image of the scene

corresponding to a fixed point of said scene; by generating a first command signal when said first image point is subjected to a change of position on said target; and in controlling said programmable processor member as a function of said first command signal (see column 19, lines 14-30, where textual measurement for the region of interest is computed using matrix elements).

As to claim 20, Liam teaches the method, characterized in that the beginning and the end of movement of the real image of the scene relative to the target are detected: by determining at least second and third image points of said real image of the scene corresponding respectively to two stationary points of said scene; by generating a second command signal when the distance between said second and third image points changes; and by controlling said programmable processor member as a function of the second command signal (see column 19, lines 14-30, where textual measurement for the region of interest is computed using matrix elements).

As to claim 21, Liam teaches the method, characterized in that the beginning and the end of movement of the real image of the scene relative to the target are detected: by determining at least fourth and fifth image points of said real image of the scene which correspond respectively to two stationary points of said scene; by generating a third command signal when the distance between the fourth and fifth image points varies and when at least one of the fourth and fifth image points is subject to a change of position on said target; and by controlling said programmable processor

member as a function of the third command signal (see column 19, lines 14-30, where textual measurement for the region of interest is computed using matrix elements).

As to claim 27, Liam teaches the method characterized by the fact that the beginning and the end of movement of the real image of the scene relative to the target are detected: by determining a plurality of image points of said real image of the scene corresponding to a plurality of points that are stationary at the beginning of movement of the real image; by generating a fourth command signal when a determined number of said plurality of image points have become stationary again at the end of movement of the real image; and by controlling said programmable processor member as a function of said fourth command signal (see column 19, lines 14-30, where textual measurement for the region of interest is computed using matrix elements).

4. Claims 22 and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liam (PCT/SG99/00115) in view of Tanaka (US Patent No.: 5,798,793) and Bague (US Patent No.: 6,246,933) as applied to claim 17 above, and further in view of Michalopoulos et al (Patent No.: US 4,847,772).

As to claim 22, the combination Liam, Tanaka and Bague as a whole does not teach the method, characterized by the fact that it consists in subdividing said target into a plurality of photosensitive points, said photosensitive points being suitable for delivering signals as a function of the quantity of radiation received by their photosensitive surfaces. Michalopoulos discloses a vehicle detection method (column 1,

lines 8-10) characterized by the fact that it consists in subdividing said target into a plurality of photosensitive points, said photosensitive points being suitable for delivering signals as a function of the quantity of radiation received by their photosensitive surfaces (see Fig 3, where the image is divided into blocks, also se column 2, lines 55-65). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modified the method for detecting a traffic incident of Liam as modified by Tanaka and Bague with the vehicle detection method of Michalopoulos to determine vehicle presence, passage, measure various traffic parameters, thus facilitating traffic surveillance (column 1, lines 10-17) by processing selection portion of the successive frames (column 4, lines 30-35).

As to claims 28-30, note the discussion of claim 22 above.

Allowable Subject Matter

5. Claims 23-26 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance: None of the prior art teaches or fairly disclose "wherein the process for detecting an incident on said portion of route when it is suitable for having objects traveling thereon along an axis and following a path that is substantially imposed, comprises: in selecting a group of photosensitive points in said plurality of photosensitive points of the target, the selected

group of points corresponding to points of said portion of route located on a plurality of main geometrical construction lines, said main construction lines being situated in the plane of said portion of route and all being substantially parallel to the axis of said trajectory; and in analyzing the set of signals delivered by the photosensitive points of said selected group".

Inquiries

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDRAE S. ALLISON whose telephone number is (571)270-1052. The examiner can normally be reached on Monday-Friday, 8:00 am - 5:00 pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vu Le can be reached on (571) 272-7223. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vu Le/
Supervisory Patent Examiner, Art Unit 2624

/A. S. A./
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